

III. REMARKS

1. Claims 1-15 remain in the application. Claims 1-6 and 11 have been amended.

2. Applicants appreciate the indication that claims 3-7 and 11-15 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. However, Applicants believe that these claims are patentable as they stand for the reasons stated below.

3. Applicants respectfully submit that claims 1, 2, and 8-10 are not anticipated by Hardin (US 5,631,920) under 35 USC 102(b).

Harding fails to disclose or suggest any of the features of claims 1 and 9.

3.1 Hardin fails to disclose or suggest a method or apparatus for generating wander noise according to a predefined frequency profile, as recited by claims 1 and 9.

A close reading of Hardin finds nothing whatsoever related to wander noise. Indeed the word "wander" appears nowhere in the reference. Rather, Hardin is concerned with generating clock signals for use, for example, in computer equipment, which generate less electromagnetic interference (EMI). See column 1, lines 36-37, column 2, lines 49-53, and column 3, lines 6-9. Nowhere does Hardin discuss wander noise.

3.2 Hardin fails to disclose or suggest selecting one of a plurality of predefined frequency profiles, as recited by the independent claims.

Nowhere does Harding use the phrase "frequency profile." Although Hardin does have the words "frequency" and "profile," the specific phrases used are "frequency deviation profile," "profiles of frequency deviation," or something similar. In column 2, line 66 through column 3, line 4, and column 4, lines 40-44, Hardin describes frequency modulating a clock with a periodic waveform having a frequency deviation profile. Figure 3 shows a typical profile of the frequency deviation over time. Thus, Hardin explicitly refers to frequency modulation and in that context "frequency deviation" has a very well-established meaning.

In contrast, the present invention describes "frequency profiles" that include predetermined frequency, amplitude, and phase values for each of a plurality of tones. This is clearly entirely different from a "frequency deviation profile". Thus, a frequency profile is not the same as a frequency deviation profile, and it is improper for the Examiner to ignore the presence of the word "deviation" in Hardin because it is clearly an essential part of Hardin's teaching. Therefore, Hardin cannot disclose or suggest "selecting one of plurality of predefined frequency profiles" as recited in claims 1 and 9.

3.3 Hardin also fails to disclose or suggest providing predetermined frequency, amplitude and phase values for each of a plurality of tones for the selected predefined frequency profile, as recited by claims 1 and 9.

As stated above, Hardin does not disclose or suggest a predefined frequency profile. Figure 2, cited by the Examiner, only shows how frequency modulating a clock reduces the amplitude of EMI components. Figure 4, also cited by the Examiner, shows ranges of frequency deviation expressed as a percentage of a period of a periodic waveform. Column 3, lines 1-19, also cited by the Examiner, describes frequency modulating a clock with a frequency deviation profile. Thus, none of the cited portions of Hardin disclose or suggest providing predetermined frequency, amplitude and phase values for each of a plurality of tones. Hardin does use the word "amplitude", but exclusively in the context of the amplitude of EMI spectral components, harmonics or similar (see for example the abstract). Nowhere does Hardin teach providing predetermined amplitude values for each a plurality of tones for a selected frequency profile. Hardin also uses the word "phase", but almost solely in the context of the phrases "phase detector" and "phase-locked loop". Nowhere does Hardin teach providing predetermined phase values for each a plurality of tones, for a selected frequency profile. Nor for that matter does Hardin teach providing predetermined frequency values for each a plurality of tones for a selected frequency profile.

3.4 Hardin also fails to disclose or suggest generating a digital noise signal based on the sum of the plurality of tones.

Column 2, lines 11-22, cited by the Examiner, describes how digital data is applied to an adder and accumulator, where the output of the accumulator is input to a phase locked loop having a voltage controlled oscillator, and the output of the oscillator is used as a spread spectrum clock signal. There is nothing related to generating a digital noise signal based on

the sum of the plurality of tones. Hardin does show an adder 45 (Fig. 6), however, this is not described as generating a digital noise signal, based on a sum of a plurality of tones for a selected frequency profile.

3.5 Hardin further fails to disclose or suggest generating a wander noise signal from the digital noise signal.

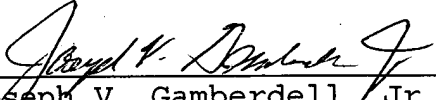
As argued above, Hardin has no disclosure at all related to generating a wander noise signal.

At least for these reasons, independent claims 1 and 9 and dependent claims 2, 8, and 10 are not anticipated by Hardin.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

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Respectfully submitted,


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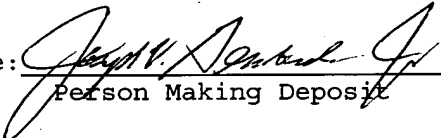
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